

CLAIMS

1. A tread (12) for a tire (10), the tread (12) having two or more circumferentially continuous grooves (20,22,24) and a continuous rib (30,32) between an adjacent pair of circumferentially continuous grooves (20,22); the tread (12) characterized by:

5 a plurality of circumferentially spaced hook-shaped semi-blind grooves (40) originating each in a circumferentially extending groove (20,22,24) arranged in two rows (1,2,3,4) in the continuous rib (30,32), a first row (1) of hook-shaped semi-blind grooves (40), each hook-shaped semi-blind grooves (40) being inclined obliquely as measured from a centerline (45) bisecting the hook-shaped semi-blind grooves (40), a second row (2) of hook-shaped semi-blind grooves (40) being similar in shape, but circumferentially offset.

10 2. The tread of claim 1 wherein the hook-shaped semi-blind grooves (40) of the second row (2) are oppositely inclined but similarly oriented relative to the hook-shaped semi-blind groove (40) of the first row (1), each hook-shaped semi-blind grooves (40) of the second row (2) intersecting the other adjacent circumferentially continuous groove (20,22).

15 3. The tread (12) of claim 1 wherein the hook-shaped semi-blind grooves (40) of the second row (2) are similarly inclined but oppositely oriented relative the hook-shaped semi-blind groove (40) of the first row (1), each hook-shaped semi-blind grooves (40) of the second row (2) intersecting the other adjacent circumferentially continuous groove (20,22).

20 4. The tread (12) of claim 1 further characterized by a sipe incision (50) extending from and oriented in the same direction as a blind portion (42) of the hook-shaped semi-blind grooves (40) of the first row (1) and second row (2).

25 5. The tread (12) of claim 1 further characterized by three circumferentially continuous grooves (20,22,24), and two continuous ribs (30,32), each rib (30,32) being adjacent to and between a pair of the circumferentially continuous grooves (20,22) or (22,24), and wherein the hook-shaped semi-blind grooves (40) of rib (30) are oppositely oriented relative to the hook-shaped semi-blind groove (40) in rib (32).

30 6. The tread (12) of claim 1 wherein the hook-shaped semi-blind grooves (40) of each rib (30,32) intersecting a common circumferentially continuous groove (22), intersect the common circumferentially continuous groove (22) at a substantially circumferentially aligned location relative to the intersection of the axially adjacent hook-shaped semi-blind grooves (40) of the other rib (30 or 32).

7. The tread (12) of claim 6 wherein the tread (12) has a pair of lateral tread edges (14,16) defining the tread width (TW) and the distance halfway between the lateral tread edges

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(14,16) defines the equatorial plane (EP) of the tread (12), and the common circumferentially continuous groove (22) is centered at the equatorial plane (EP) of the tread (12).

8. The tread (12) of claim 1 wherein the centerline (45) of the hook-shaped semi-blind grooves (40) is oriented at an angle θ in the range of 30° to 60° relative to the equatorial plane (EP) of the tread (12).

9. The tread (12) of claim 1 wherein the centerline (45) of the hook-shaped semi-blind grooves (40) is oriented at an angle θ about 45° relative to the equatorial plane (EP) of the tread (12).

10. The tread (12) of claim 1 further characterized by a pair of shoulder ribs (34,36), a first shoulder rib (34) being adjacent to and lying between the first lateral edge (14) and a circumferentially continuous groove (20) and a second shoulder rib (36) being adjacent to the second lateral edges (16) and between a circumferentially continuous groove (24) and the second lateral edge (16).

11. The tread (12) of claim 10 wherein each first and second shoulder rib (34,36) has a plurality of circumferentially spaced curved grooves (46) intersecting and adjacent circumferentially continuous groove (20,24) at locations in substantially linear alignment with the location of intersection of the hook-shaped semi-blind grooves (40) and the respective circumferentially continuous groove (20,24).

12. The tread (12) of claim 11 wherein each curved groove (46) changes orientation by about 90° as the groove (46) extends axially toward a lateral tread edge (14,16).

13. The tread (12) of claim 12 wherein each curved groove (46) has a full depth (D) at the lateral extremes and a reduced depth (d) therebetween the lateral extremes, (d) being about 50% of D or less.